	Application No.	**Applicant(s)**
Notice of Allowability	09/944,749	ISHIZAKA, TOSHIHIRO
	Examiner	**Art Unit**
	Kambiz Zand	2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *01/21/2005 and interview conducted on 04/28/2005*.

2. ☒ The allowed claim(s) is/are *1-28 and 30-34, now, re-numbered as claims 1-33*.

3. ☒ The drawings filed on *31 August 2001* are accepted by the Examiner.

4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☒ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

    Paper No./Mail Date _____ .

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *enclosed* .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

Kambiz Zand 04/28/05

DETAILED ACTION

EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Mr. William Frommer on 04/28/2005 and 04/29/2005.

The application has been amended as follows:

Claims 2-9 and 22-26

Phrase "An" line 1 has been replaced with the phrase - -The - --.

Claims 12-15, 17-19 and 30-34

Phrase "A" line 1 has been replaced with the phrase - -The - --.

Claim 11

(Currently Amended)   A recording medium on which data is recorded by a file

structure having a directory serving as an upper concept in which one or a plurality

of files are bound, wherein with respect to one or each of said plurality of files

said files are bound, a data block including one or a plurality of list-type data

structures each including a plurality of first arithmetic operation values which were

arithmetically operated every file on the basis of attribute information of said file by a

predetermined arithmetic operating method which uses a unidirectional function and

an original value cannot be obtained by performing a reverse arithmetic operation

from a MAC value is recorded into an area that is not accessed by a file system and

each of said first arithmetic operation values is written into the corresponding file,

said data block being written twice into the area which is not accessed by said file

system and having a field in which the number of updating times of said data block

or a value showing that said data block is invalid is stored.

Claim 16

(Currently Amended) [A] The medium according to claim 11, wherein [said data

block is written twice into the area which is not accessed by said file system and has

a field in which the number of updating times of said data block or a value showing

that said data block is invalid is stored, and]when said data block is rewritten, a

value of said field of one of said twice-written data blocks is set to the value showing

that said data block is invalid, said one data block is rewritten, when said rewriting is

finished, the value of said field of said one data block is set to a value indicative of

the number of updating times of said one data block, a value of said field of the other

one of said twice-written data blocks is set to the value showing that said data block

is invalid, said other data block is rewritten, and when said rewriting is finished, the

value of said field of said other data block is set to a value indicative of the number

of updating times of said other data block.

Claim 20

(Currently amended) A data alteration checking apparatus for discriminating

whether data recorded on a recording medium has been altered or not, comprising:

reproducing means for reproducing said recording medium on which

unique identification information is fixedly recorded every recording medium, and with

respect to one or each of a plurality of files recorded on said recording medium, a first

arithmetic operation value which was arithmetically operated on the basis of attribute

information of said file and said identification information by a predetermined arithmetic

operating method which uses a unidirectional function and an original value cannot be

obtained by performing a reverse arithmetic operation from a MAC value has been

stored, said first arithmetic operation value having been recorded in an area which is not

accessed by a file system of said recording medium; and

comparing means for comparing said first arithmetic operation value

stored in said file reproduced by said reproducing means with a second arithmetic

operation value which was arithmetically operated by said predetermined arithmetic

operating method on the basis of said attribute information of said file reproduced by

said reproducing means and said identification information,

wherein on the basis of a result of the comparison by said comparing

means, when said first and second arithmetic operation values do not coincide, it is

determined that said file is illegal.

Claim 21

(currently amended) [An] The apparatus according to claim 20, wherein

on said recording medium, a list-type data structure is recorded on said

recording medium in which said first arithmetic operation values of every one or a

plurality of said files recorded on said recording medium have been stored is recorded

into an area which is not accessed by a file system of said recording medium, and

when said file recorded on said recording medium is reproduced by said reproducing

means, said first arithmetic operation value stored in said list-type data structure is

compared with said second arithmetic operation value which was arithmetically

operated by said predetermined arithmetic operating method on the basis of said

attribute information of said file reproduced by said reproducing means and said

identification information, and when said first and second arithmetic operation values

do not coincide, it is determined that said file is illegal.

Claim 27

(currently amended) A data alteration checking method of discriminating whether

data recorded on a recording medium has been altered or not, comprising:

a reproducing step of reproducing said recording medium on which unique

identification information is fixedly recorded every recording medium, and with

respect to one or each of a plurality of files recorded on said recording medium, a

first arithmetic operation value which was arithmetically operated on the basis of

attribute information of said file and said identification information by a

predetermined arithmetic operating method which uses a unidirectional function and

an original value cannot be obtained by performing a reverse arithmetic operation

from a MAC value has been stored, said first arithmetic operation value having been

recorded in an area which is not accessed by a file system of said recording

medium; and

a comparing step of comparing said first arithmetic operation value stored

in said file reproduced by said reproducing step with a second arithmetic operation

value which was arithmetically operated by said predetermined arithmetic operating

method on the basis of said attribute information of said file reproduced by said

reproducing step and said identification information,

wherein on the basis of a result of the comparison by said comparing step, when

said first and second arithmetic operation values do not coincide, it is determined

that said file is illegal.

Claim 28

(currently amended) A recording medium onto/from which data can be recorded

and/or reproduced, wherein

unique identification information is fixedly recorded every medium, and

one or a plurality of said files in each of which a first arithmetic operation value which

was arithmetically operated on the basis of attribute information of said file and said

identification information by a predetermined arithmetic operating method which uses a unidirectional function and an original value cannot be obtained by performing a reverse arithmetic operation from a MAC value has been stored are recorded; and

wherein a list-type data structure in which said first arithmetic operation value of one or each of a plurality of said recorded files has been stored is recorded into an area which is not accessed by a file system; and

wherein a list-type data structure in which said first arithmetic operation value of one or each of a plurality of said recorded files has been stored is recorded into an area which is not accessed by a file system, said list-type data structure including a data block having a field in which the number of updating times of said data block or a value showing that said data block is invalid is stored.

Claim 29

(canceled)

2.   The text of those sections of Title 35, U.S.Code not included in this section can be found in the prior office action.

3.   The prior office actions are incorporated herein by reference. In particular, the

observations with respect to claim language, and response to previously presented

arguments.

4.   Claim 29 has been cancelled.

5.   Claims 2-9, 12-28 and 30-34 have been amended.

6.   Claims 1-28 and 30-34, now re-numbered as claims 1-33 are pending.

7.   Examiner withdraws rejection of the claims under 35 U.S.C 112-First paragraphs

due to corrections by the applicant.

8.   Examiner withdraws rejection of the claims under 35 U.S.C 112-second

paragraphs due to correction by the applicant.

Response to Arguments

9.   Applicant's arguments filed 01/21/2005 have been fully considered and they are

persuasive.

Allowable Subject Matter

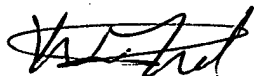10.   Claims 1-28 and 30-34 are allowed.

Conclusion

11.   Any comments considered necessary by the applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submission should be clearly labeled "comments on statement of reasons for allowance."

12.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kambiz Zand whose telephone number is (571) 272-3811. The examiner can normally reached on Monday-Thursday (8:00-5:00). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone numbers for the organization where this application or proceeding is assigned as (703) 872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kambiz Zand

04/29/2005

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